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 INTELLECTUAL PROPERTY LAW

August 29, 2006



Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

Re: U.S. Patent No. 7,046,960
 Issued: May 16, 2006
 Inventor: Makoto Takemoto et al.
 Our Docket No.: 34109

Sir:

A Certificate of Correction under 35 U.S.C. 254 is hereby requested to correct Patent Office printing errors in the above-identified patent. Enclosed herewith is a proposed Certificate of Correction (Form No. PTO-1050) and documentation in support of the proposed corrections for consideration.

It is requested that the Certificate of Correction be completed and mailed at an early date to the undersigned attorney of record. The proposed corrections are obvious ones and do not in any way change the sense of the application.

We understand that a check is not required since the errors were on the part of the Patent and Trademark Office in printing the patent.

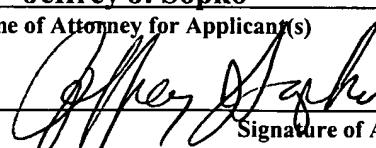
Very truly yours,

Jeffrey J. Sopko, Reg. No. 27676

JJS:jw

Enclosures

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Jeffrey J. Sopko	
Name of Attorney for Applicant(s)	
8/28/06	
Date	Signature of Attorney

SEP 05 2006

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,046,960 PAGE 1 OF 1
DATED : May 16, 2006
INVENTOR(S) : Takemoto et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 2, line 53, please delete "are lay" and insert - -a relay- -

In Column 14, line 48, please delete "chase" and insert - -phase- -

In Column 14, line 58, please delete "chase" and insert - -phase- -.

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PATENT NO. 7,046,960 B2

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the signal transmission qualities could not be completely solved.

Summary of the Invention

5 The present invention has been made to solve the above-explained problems, and therefore, has an object to provide such a relay apparatus capable of firmly removing a loop wave contained in a received input signal by correcting both an amplitude error and a phase error, which are contained 10 in a duplicated loop signal, and also capable of maintaining transmission qualities under better condition.

15 To solve the above-described problems, according to a first aspect of the present invention, a relay apparatus equipped with a function capable of canceling loop operation of a signal between a reception antenna and a transmission antenna, comprising: subtracting unit for subtracting a duplicated loop signal from a received input signal which is produced by containing loop waves in a desirable wave received via the reception antenna; relay broadcasting unit for inputting 20 the output signal of the subtracting unit and for outputting a broadcasting signal; signal processing unit for producing the duplicated loop signal based upon any one of the input signal of said relay broadcasting unit and the broadcasting signal outputted from the relay broadcasting unit; and variable 25 attenuating unit for varying a signal level of the duplicated

23 an error rate measuring unit for measuring an error
24 rate of said broadcasting signal which is demodulated by
25 said receiving/demodulating unit,

26 wherein said variable attenuating unit adjusts the
27 signal level of said duplicated loop signal so that an
28 amplitude error of said duplicated loop signal is
29 corrected, and

30 wherein said variable attenuating unit adjusts the
31 signal level of said duplicated loop signal in such a
32 manner that the error rate of said broadcasting signal
33 measured by said error rate measuring unit becomes lower
34 than, or equal to a predetermined value.

1 Claim 7 (currently amended): A ~~The~~ relay apparatus as
2 claimed in claim 2, further equipped with a function
3 capable of canceling loop operation of a signal between a
4 reception antenna and a transmission antenna, comprising:

5 a subtracting unit for subtracting a duplicated loop
6 signal from a received input signal which is produced by
7 containing loop waves in a desirable wave received via said
8 reception antenna;

9 a relay broadcasting unit for inputting the output
10 signal of said subtracting unit and for outputting a
11 broadcasting signal;

12 a signal processing unit for producing said duplicated
13 loop signal based upon any one of the input signal of said

14 relay broadcasting unit and the broadcasting signal
15 outputted from said relay broadcasting unit;

16 a variable phase shifting unit for varying a phase of
17 said duplicated loop signal which is produced by said
18 signal processing unit;

19 a receiving/demodulating unit for receiving said
20 broadcasting signal outputted from said relay broadcasting
21 unit and for demodulating said received broadcasting
22 signal; and

23 an error rate measuring unit for measuring an error
24 rate of said broadcasting signal which is demodulated by
25 said receiving/demodulating unit,

26 wherein a said variable phase shifting unit adjusts
27 the phase of said duplicated loop signal so that a phase
28 error of said duplicated loop signal is corrected, and

29 wherein said variable phase shifting unit adjusts the
30 phase of said duplicated loop signal in such a manner that
31 the error rate of said broadcasting signal measured by said
32 error rate measuring unit becomes lower than, or equal to
33 a predetermined value.